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PTO/SB/01 (10-01)

Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</b>  <input checked="" type="checkbox"/> Declaration Submitted with Initial Filing      OR <input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	<b>Attorney Docket Number</b>	38898-0049
	<b>First Named Inventor</b>	DUXBURY, Guy et al.
	<b>COMPLETE IF KNOWN</b>	
	<b>Application Number</b>	
	<b>Filing Date</b>	
	<b>Art Unit</b>	
	<b>Examiner Name</b>	

As the below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original and first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**OFFSETTING PATCH ANTENNAS ON AN OMNIDIRECTIONAL MULTI-FACETTED  
ARRAY TO ALLOW SPACE FOR AN INTERCONNECTION BOARD**

(Title of the Invention)

the specification of which

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY)

as United States Application Number or PCT International

Application Number and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed?	Certified Copy Attached?	
60/451,897	U.S.A.	03/04/2003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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**DECLARATION — Utility or Design Patent Application**

Direct all correspondence to: <input type="checkbox"/> Customer Number or Bar Code Label		OR <input type="checkbox"/> Correspondence address below	
Name			
Address			
City		State	ZIP
Country	Telephone		Fax
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			
NAME OF SOLE OR FIRST INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name Guy (first and middle (if any))		Family Name DUXBURY or Surname	
Inventor's Signature		Date	
Nepean Residence: City	ON State	Canada Country	Canadian Citizenship
56 Foothills Drive			
Mailing Address			
Nepean City	ON State	K2H 6K3 ZIP	Canada Country
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name Robert (first and middle (if any))		Family Name SHEFFIELD or Surname	
Inventor's Signature		Date	
Ottawa Residence: City	ON State	Canada Country	Canadian Citizenship
87 Hopewell Avenue			
Mailing Address			
Ottawa City	ON State	K1S 2Y9 ZIP	Canada Country
<input checked="" type="checkbox"/> Additional inventors are being named on the _____ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.			

PTO/SB/02A (10-00)

Approved for use through 10/31/2002. OMB 0651-0022

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> Supplemental Sheet Page <u>1</u> of <u>1</u>
--------------------	--

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name <b>David</b>		Family Name or Surname <b>BOLZON</b>	
Inventor's Signature		Date	
Residence: City <b>Kanata</b>	ON State	Canada Country	Canadian Citizenship
36 Bon Echo Crescent Mailing Address			
Mailing Address			
City <b>Kanata</b>	ON State	K2M 2W6 ZIP	Canada Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name <b>Ian</b>		Family Name or Surname <b>ABRAHAM</b>	
Inventor's Signature <i>I. A. Abraham</i>		Date <b>25-Sept-2003</b>	
Residence: City <b>Bishops Stortford</b>	Hertfordshire State	United Kingdom Country	United Kingdom Citizenship
18 Little Heath, Hatfield Heath, Mailing Address			
Mailing Address			
City <b>Bishops Stortford</b>	Hertfordshire State	CM22 7EP ZIP	United Kingdom Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name <b>Andrew</b>		Family Name or Surname <b>URQUHART</b>	
Inventor's Signature <i>A. Urquhart</i>		Date <b>25 Sept 2003</b>	
Residence: City <b>Bishops Stortford</b>	Hertfordshire State	United Kingdom Country	United Kingdom Citizenship
22 Woodpecker Close Mailing Address			
Mailing Address			
City <b>Bishops Stortford</b>	Hertfordshire State	CM234QA ZIP	United Kingdom Country

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(37 CFR 1.63)**

☒ Declaration Submitted with Initial Filing      OR      ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	38898-0049
First Named Inventor	DUXBURY, Guy et al.
<b>COMPLETE IF KNOWN</b>	
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Examiner Name	

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ARRAY TO ALLOW SPACE FOR AN INTERCONNECTION BOARD**

(Title of the Invention)

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☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY)

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Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

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Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
60/451,897	U.S.A.	03/04/2003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

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## DECLARATION — Utility or Design Patent Application

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Name

Address

City

State

ZIP

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name Guy  
(first and middle [if any])

Family Name DUXBURY  
or Surname

Inventor's  
Signature

*Guy A. Duxbury*

29<sup>th</sup> Sept 03  
Date

Nepean

ON

Canada

Canadian

Residence: City

State

Country

Citizenship

56 Foothills Drive

Mailing Address

Nepean

ON

K2H 6K3

Canada

City

State

ZIP

Country

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name Robert  
(first and middle [if any])

Family Name SHEFFIELD  
or Surname

Inventor's  
Signature

*R. Sheffield*

29<sup>th</sup> Sept 03  
Date

Ottawa

ON

Canada

Canadian

Residence: City

State

Country

Citizenship

87 Hopewell Avenue

Mailing Address

Ottawa  
City

ON  
State

K1S 2Y9  
ZIP

Canada  
Country

☒ Additional inventors are being named on the \_\_\_\_\_ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

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**DECLARATION****ADDITIONAL INVENTOR(S)****Supplemental Sheet**Page 1 of 1**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventor

David  
Given  
Name

BOLZON  
Family Name  
or Surname

Inventor's  
Signature

Date 29 Oct 01

Kanata  
Residence: City

ON  
State

Canada  
Country

Canadian  
Citizenship

36 Bon Echo Crescent  
Mailing Address

Mailing Address

Kanata  
City

ON  
State

K2M 2W6  
ZIP

Canada  
Country

**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventor

Ian  
Given  
Name

ABRAHAM  
Family Name  
or Surname

Inventor's  
Signature

Date

Bishops Stortford  
Residence: City

Hertfordshire  
State

United Kingdom  
Country

Cayman Islands  
Citizenship

18 Little Heath, Hatfield Heath,  
Mailing Address

Mailing Address

Bishops Stortford  
City

Hertfordshire  
State

CM22 7EP  
ZIP

United Kingdom  
Country

**Name of Additional Joint Inventor, if any:**☐ A petition has been filed for this unsigned inventor

Andrew  
Given  
Name

URQUHART  
Family Name  
or Surname

Inventor's  
Signature

Date

Bishops Stortford  
Residence: City

Hertfordshire  
State

United Kingdom  
Country

United Kingdom  
Citizenship

22 Woodpecker Close  
Mailing Address

Mailing Address

Bishops Stortford  
City

Hertfordshire  
State

CM234QA  
ZIP

United Kingdom  
Country

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File: 38898-0049 MG:TLS:lmc

Applicant: Nortel Networks Limited  
Title: OFFSETTING PATCH ANTENNAS ON AN OMNIDIRECTIONAL  
MULTI-FACETTED ARRAY TO ALLOW SPACE FOR AN  
INTERCONNECTION BOARD  
Serial No.: (unknown)  
Filed: (unknown)  
Executed: September 26, 2003

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPOINTMENT OF ASSOCIATE AGENT**

The undersigned, Mitchell B. Charness, Registration No. 46,416, principal attorney and/or agent appointed to prosecute this application hereby appoints as his associate attorney and/or agent to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith:

Lindsay McGuinness, (Registration No. 38549)

Mary Steubing, (Registration No. 37946)

of Steubing McGuinness & Manaras L.L.P. 30 Nagog Park, Acton, MA, 01720, United States of America.

Address all telephone calls to Ms. Lindsay McGuinness at (978) 264-6664 x304 and address all correspondence to Steubing McGuinness & Manaras L.L.P. at the above-captioned address.

  
\_\_\_\_\_  
Mitchell B. Charness

**APPENDIX B-9**

PATENT/DOCKET NO. \_\_\_\_\_  
CUSTOMER NO. \_\_\_\_\_

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:	§ Attorney Docket No. 38898-0049
	§
Serial No.: n/a	§
	§
Filed: Herewith	§ Group Art Unit: n/a
	§
Title: OFFSETTING PATCH ANTENNAS ON	§ Examiner: n/a
AN OMNIDIRECTIONAL MULTI-	§
FACETTED ARRAY TO ALLOW SPACE	§
FOR AN INTERCONNECTION BOARD	§

Commissioner for Patents  
Washington, D.C. 20231

**POWER OF ATTORNEY FOR  
PATENT APPLICATION**

Nortel Networks Limited, a Canadian corporation having principal offices at:

**2351 Boulevard Alfred-Nobel  
St. Laurent, Quebec H4S 2A9, Canada**

the owner by assignment of the entire right, title and interest to the invention for  
OFFSETTING PATCH ANTENNAS ON AN OMNIDIRECTIONAL MULTI-  
FACETTED ARRAY TO ALLOW SPACE FOR AN INTERCONNECTION BOARD,  
by DUXBURY, Guy; SHEFFIELD, Robert; BOLZON, David; ABRAHAM, Ian; and  
URQUHART, Andrew, and in and to the application for patent and any Letters Patent,  
whether domestic or foreign, that may issue thereon, hereby appoints the following  
attorneys and/or agents to prosecute this application and transact all business in the Patent  
and Trademark Office connected therewith:

W. Charles Kent, Registration No. 26,135; and/or  
William R. Edgar, Registration No. 27,522; and/or  
Mitchell B. Charness, Registration No. 46,416; and/or  
Adrian Zahl, Registration No. 35,774.

its attorneys with full power of substitution and revocation, to prosecute all domestic and  
foreign patent applications, including PCT and EPO filings, relating to said invention and  
to transact all business connected therewith, including signing of all papers on its behalf  
and making alterations and amendments.



Please address all correspondence and telephone calls regarding this application to:

Mr. W. Charles Kent, of RIDOUT & MAYBEE LLP, whose full office address is 150 Metcalfe Street, 19<sup>th</sup> Floor, Ottawa, Ontario K2P 1P1, Canada,  
Telephone No. (613) 236-1995.

---

The undersigned is the representative for the Assignee of the entire right, title, and interest in the patent application identified above, and is authorized to act on behalf of the Assignee.

**NORTEL NETWORKS LIMITED**

Date

29 Sept. '03

Name

J-P Fortin

Title

Director, IP